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Public Hearing Date:	January 10, 2011
Zoning and Planning Action Date:	March 28, 2011
Board of Aldermen Action Date:	April 4, 2011
90-Day Expiration Date:	April 8, 2011

DATE: January 7, 2011

TO: Alderman Marcia T. Johnson, Chairman, and
Members of the Zoning and Planning Committee

FROM: Candace Havens, Director of Planning and Development
Jennifer Molinsky, Interim Chief Planner for Long Range Planning

RE: **PUBLIC HEARING**

#142-09(6): INTERIM DIRECTOR OF PLANNING AND DEVELOPMENT requesting to amend Chapter 30, §30-15(u) and TABLE 1 regarding Floor Area Ratio (FAR) to institute a new method of calculating maximum FAR for single- and two-family structures in residential districts based on a sliding scale tied to lot size and zoning district; to amend § 30-1 definitions of "gross floor area" and "floor area ratio" to include additional building features, accessory structures, and mass below first story; to amend § 30-1 to add definitions of "carport," "porch," "enclosed porch," and "mass below first story;" to delete the reference to §30-15 Table 1 contained in §30-21(c) and replace it with a reference to §30-15(u); to determine a date between six (6) and twelve (12) months from date of passage, that the above amendments will become effective; and to extend the expiration dates of §30-15(u) paragraphs 1, 2, and 3 so they remain in effect until such date that the above amendments become effective.

CC: Board of Aldermen
Mayor Setti D. Warren
Planning and Development Board
John Lojek, Commissioner of Inspectional Services
Marie Lawlor, Assistant City Solicitor

The purpose of this memorandum is to provide the Board of Aldermen, Planning and Development Board, and the public with technical information and planning analysis which may be useful in the decision making process of the Board. The Planning Department's intention is to provide a balanced view of the issues with the information it has at the time of the public hearing. There may be other information presented at or after the public hearing that the Zoning and Planning Committee of the Board of Aldermen will consider in its discussion at a subsequent Working Session.

This memo describes a proposal to reform floor area ratio (FAR) in the Zoning Ordinance. The proposal was developed by the FAR Working Group, a citizen group appointed by the Mayor and President of the Board of Aldermen in 2009, and finalized with input from the Planning Department. It recommends a new definition of residential "gross floor area" that is more easily enforced and less likely to result in floor area built without regard to FAR, and a new sliding scale of residential FAR limits that are tied to lot size and zoning district. The proposal applies to all one- and two-family residences in residential zoning districts in the City. A public hearing on the proposal will be held January 10, 2011. As discussed in this memo, the Planning Department recommends adoption of this proposal.

I. FAR Definition and Purpose

Floor area ratio (FAR), defined as the gross floor area of a building or buildings divided by the area of the lot on which they are built, regulates the amount of gross floor area that can be built on a site. In Newton, each residential zoning district has its own FAR limit, and one can calculate the maximum allowed gross floor area for a particular lot by multiplying the FAR limit by the lot size. For example, the FAR limit in Single Residence 2 (SR2) zones is .3, meaning that on a 10,000 sq. ft. lot, 3,000 sq. ft. of gross floor area is allowed as of right; on a 5,000 sq. ft. lot in the same district, 1,500 sq. ft. of gross floor area is allowed as of right. In Newton, current residential FAR limits range from .2 to .4 (depending on the zoning district and age of the lot), but can be exceeded with a special permit from the Board of Aldermen.

FAR is one of many dimensional controls used in the Zoning Ordinance, each of which has different functions in managing the built environment. In Newton's ordinance, *height controls* and *half story* regulations address building proportions; *lot coverage* and *open space* requirements ensure the provision of open space; and *setback requirements* regulate the placement of a structure on a site, particularly its distance from neighboring lots and from a street. *FAR* regulates the amount of mass that can be built above grade.

The definition of "gross floor area" (or GFA) is a critical component of FAR, as elements that are exempt from GFA are exempt from FAR regulations. Under current zoning in Newton, only some residential building elements are captured in GFA – mainly first and second stories, atria, attached garages, and enclosed porches only if heated. Attics or half stories above the second floor, detached structures, above-grade portions of basements – even though they all contribute to mass above grade – are not currently counted in GFA, and, therefore, can be built without regard to FAR (assuming other zoning controls allow).

Throughout this memo, the term "FAR limit" refers to the maximum FAR allowed by the Zoning Ordinance without a special permit, while "actual FAR" refers to the actual FAR of a residential structure, calculated using the definition of gross floor area and the structure's lot size. For example, a 10,000 sq. ft. lot with a 2,000 sq. ft. house upon it in the Single Residence 2 district

would have an *FAR limit* of .3 under the Zoning Ordinance, but an *actual FAR* of .2 (2,000/10,000). *Allowable GFA* refers to the square footage allowed on a current lot given the lot size and FAR limit; in this example, allowable GFA is 3,000 sq. ft.

II. History of Residential FAR in Newton

Residential FAR limits were adopted in Newton in 1997 as a result of concern about new, larger-scale houses being built on sites previously occupied by much smaller homes. At the time, FAR applied to new construction and to existing homes where more than 50% of an existing house was demolished (the latter policy was informally referred to as the "50% demo provision" and was found in the Zoning Ordinance in Sec. 30-15, Table 1, Footnote 7).

In the years after the adoption of residential FAR, some citizens and elected officials grew concerned that FAR limits could be legally exceeded by taking advantage of exemptions from GFA (by building features not included in gross floor area, such as half stories[1] or detached structures) and by use of the 50% demolition rule, in which an existing house could make significant expansions without regard to FAR. In response to these concerns, in March 2009, the Board adopted Ord. Z-44, which deleted Sec. 30-15 Table 1, Footnote 7, which eliminated the 50% demolition rule and made FAR regulations applicable to existing residences. While Ord. Z-44 addressed many concerns about *disproportionately large* homes being built via the 50% demolition rule, after the adoption of Ord. Z-44, a number of homeowners seeking to make *small* additions found they would be unable to do so without a special permit because their homes either exceeded or would exceed FAR limits with their proposed additions. To assist these homeowners, in August 2009 the Board adopted Ord. Z-51, which put in place a temporary FAR bonus for qualifying residential properties. That bonus (ranging from .05 to .07 FAR, depending on age of lot, age of house, and type of construction) was set to expire December 31, 2010, but was recently extended to February 28, 2010.

In June of 2009, the Board also passed a resolution requesting that the Director of the Planning Department conduct a study of residential FAR in the City to advise on possible FAR amendments to the Zoning Ordinance. The result of that resolution was the FAR Working Group, a group of seven citizens appointed in July 2009 by the President of the Board of Aldermen and the Mayor. The group met 14 times over nine months, submitting a final report of their work in May of 2010 (Attachment A); since last May, they have also continued to meet themselves, with the Planning Department, and with the Zoning and Planning Committee. The group's members are K. Edward Alexander, American Society of Architects, Emeritus; Chris Chu, architect; Henry Finch, architect; Thomas Greytak, homeowner; Treff LaFleche, architect; Peter Sachs, architect; and Alan Schlesinger, attorney. Planning Department staff and Commissioner of Inspectional Services John Lojek participated in the work of the group and provided support to it.

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[1] Until recently, half stories above the first floor (such as over garages) were exempt from FAR, but this was changed in 2008 (Ord. Z-35); now, only half stories above the second floor remain exempt from FAR. Half stories, despite their name, may be up to two-thirds the size of the floor below.

The FAR Working Group was charged with making recommendations for amending the zoning ordinance to ensure that FAR regulations more accurately reflect current usage and ensure that new construction is in keeping with surrounding structures and the *Newton Comprehensive Plan*. The initial concerns that the group set out to address included:

- ***FAR does not accurately reflect the floor area of actual residential structures.*** FAR is based on the calculation of gross floor area, and the current definition of *"gross floor area"* in the City's Zoning Ordinance contains numerous exemptions, including space in finished basements, half stories above the second floor, and accessory structures. Because of these exemptions, houses with equivalent actual FARs may have very different floor areas. Furthermore, there is greater variation in actual FAR among the many neighborhoods in the City than is reflected in the City's Zoning Ordinance's three single-family residential zoning districts and four multi-residence districts.
- ***The current FAR measurement creates unintended design incentives.*** For example, because *attached garages count toward FAR but detached garages do not*, there are incentives either to place garages in basements where they are exempt from FAR (because basements are also exempt, but which also often results in steep driveways for access); or to detach garages placed within a few feet of the main residence.
- ***FAR limits are particularly constraining on small, "old" lots*** (those created before December 7, 1953). Allowable GFA is determined in part by lot size. In neighborhoods with small lots, many homes have "used up" their allowable GFA and cannot make small additions without a special permit, a process that is often perceived as costly and uncertain.

III. Working Group's Analysis and Proposal

The Working Group followed a rigorous process that is described in their Final Report (Attachment A), with three stages of work: initial research and analysis, development and testing of preliminary proposals, and formulation of final proposals.

In the first stage, initial research and analysis, the group compared actual FARs of existing houses to current FAR limits in neighborhoods throughout the residential zoning districts of the City[2]. To assist the Working Group in this effort, the Planning Department used data from the Assessor's Department to estimate the current FAR of single- and two-family residences in residential districts in the City.[3]

[2] Single Residence 1, 2, and 3, and Multi-Residence 1, 2, and 3 were included in the Working Group's analysis and in the proposal. The Multi-Residence 4 district, which applies only to one site in the City, was not included in either the analysis or current proposal.

[3] Assessor's data is not a perfect match for FAR data, as in some cases the Assessor's Department calculates residential elements differently than is required by the Zoning Ordinance to calculate FAR. Nonetheless, it is the best available data for the purpose. The spreadsheet the Planning Department created with the Assessor's data utilized information for all single and two-family properties in residential districts, excluding condominiums, and was useful in estimating current actual FARs and testing various new scenarios considered by the Working Group. Please note that the spreadsheet has been refined since the Working Group prepared its final report, so that figures in that report may appear slightly different from the findings presented in this memo.

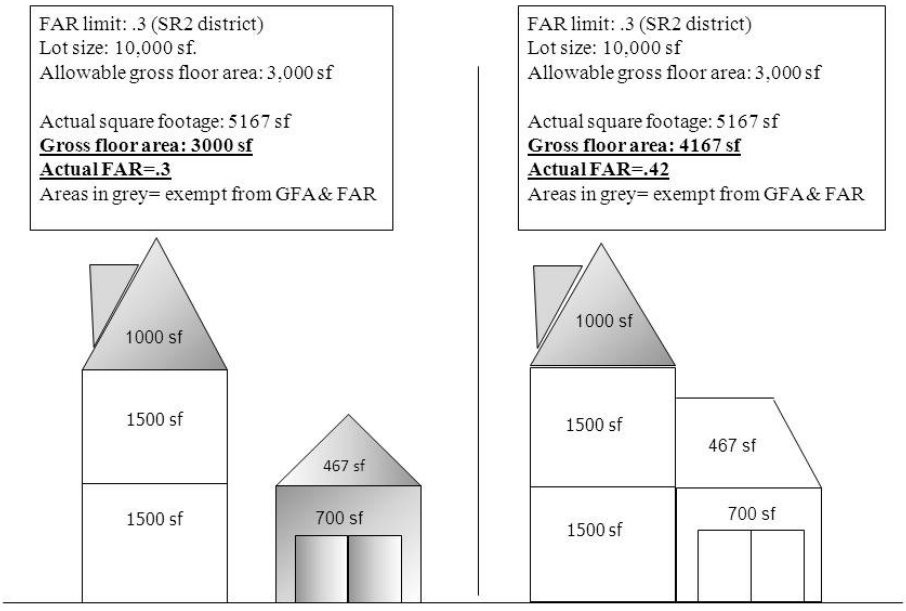
The Department created maps estimating the extent to which every residence was over or under FAR limits, and the Working Group then used these maps to walk each neighborhood of the City, comparing the built environment to the maps. The data gathering/analysis phase also included reports from the Planning Department on specific FAR cases that had been heard in the special permit process, and the Inspectional Services Department reported on implementation difficulties with the current FAR regulations.

The initial analysis led to the following findings:

1) ***Role of FAR.*** FAR has a distinct purpose among dimensional regulations: to regulate above-grade building mass.

2) ***Exemptions to FAR.*** Exemptions of certain elements from the definition of GFA –and therefore from FAR – have led to unintended design consequences (such as incentives to add half stories or to put garages in basements) and have resulted in houses with equivalent FARs that actually have very different actual floor areas. In the example shown in Figure 1, two houses with the same floor area and lot size have different GFA calculations and therefore different actual FARs. Indeed, in the example, the house on the left would be nonconforming with respect to FAR, though the house on the right would be conforming.

FIGURE 1



3) ***Nonconformities with respect to FAR.*** Over 20% of one- and two-family residences in residential districts are nonconforming with respect to FAR, with a larger proportion of nonconformities on small lots, as shown on Table 1 below. (This analysis assumes the current FAR limits as shown in Sec. 30-15 Table 1, without the use of the FAR bonus adopted in Ord.

Z-51. The Working Group used the base zoning in its preliminary analyses since the bonus is conditional upon other factors, such as age of house, age of lot, and design, though figures presented later in this memo compare the proposal to the current zoning with the bonus.)

Table 1: Estimate of Current Nonconformities With Respect to FAR (assumes no use FAR bonuses)

ZONE	SR1		SR2		SR3	
Lot Size Categories (Sq. Ft.)	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR
ALL	**1,599**	**26%**	**7,799**	**23%**	**6,217**	**15%**
0-4999	2	100%	108	95%	436	57%
5000-6999	18	72%	655	70%	1,366	27%
7000-9999	83	75%	1,990	37%	2,652	10%
10000-14999	294	49%	3,314	14%	1,337	3%
15000-19999	489	27%	1,149	4%	261	0%
20000-24999	186	12%	308	1%	85	0%
25000+	527	0%	275	0%	80	0%

ZONE	MR1		MR2		MR3	
Lot Size Categories (Sq. Ft.)	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR
ALL	**3,115**	**23%**	**939**	**38%**	**43**	**37%**
0-4999	433	61%	347	71%	8	75%
5000-6999	883	38%	282	30%	12	67%
7000-9999	1,028	11%	218	8%	15	13%
10000-14999	566	2%	83	5%	7	0%
15000-19999	127	1%	9	0%	1	0%
20000-24999	50	0%	0		0	
25000+	28	0%	0		0	

4) ***FAR and underlying residential zones.*** A key finding of the Working Group was that there is a great deal of variation in architectural style, topography, history, and lot sizes throughout the City; however, because the City's residential zoning districts are too blunt to capture the variation, FAR, which is tied to zoning district, is an ineffective instrument for accomplishing fine-tuned, area-specific goals like neighborhood preservation. For example, at best, FAR can limit houses to the general size of existing houses in a neighborhood but, in some cases, there are entire neighborhoods that fall well below the FAR limit for their zone, and a new house built to the maximum FAR may appear to be "out of character" with the surrounding area, even though it may be a similar size to those in other neighborhoods within the same zone. In this case, FAR might be criticized as too high or as allowing a home out of character with a neighborhood, but to change it for the entire zone would mean it becomes less effective in other neighborhoods in the same zone,

where the majority of houses may be at or exceed FAR limits. Though FAR regulations have different effects in different neighborhoods, *the Working Group acknowledged the need to work within existing residential zones for the present time, though this presents challenges to preserving the unique character of each neighborhood.*

5) ***Aesthetics and preservation.*** Finally, the group noted that though aesthetics and protection of neighborhood character are oft-cited concerns, FAR itself cannot address design quality, topography, compatibility with neighboring structures, or landscaping. Since the Working Group submitted its report, the group has discussed with the Planning Department and the Zoning and Planning Committee how FAR is also limited in its capacity to protect historic structures, neighborhoods, and the City's supply of smaller and more affordable housing stock. Though FAR can regulate mass, it cannot ensure design quality or compatibility of design with surrounding homes. In some cases, owing to the bluntness of existing zones discussed above, FAR limits do allow buildable capacity far in excess or, in other cases, well below the average actual FARs of surrounding buildings. As described above, post-War neighborhoods with large lots and small ranch-type housing may have a good deal of buildable capacity under FAR regulations because lots are relatively large and homes relatively small, making large expansions possible, even if new houses may appear out of scale with existing housing.

Following the analysis phase, the Working Group's next step was to develop and test preliminary proposals. The first step the group took was to clarify the definition of GFA and include in it more elements, including portions of basements and crawl spaces, enclosed porches, third floor spaces, and detached garages. The architects on the Working Group tested how these definitions would affect the calculation of FAR on several of their projects; they also reached out to colleagues in the Newton architecture community and invited them to do the same. This process resulted in refinements to the draft language. The Planning Department then used the new definitions to estimate new actual FARs for all the residential properties in the database created for the Working Group. Assuming that 25% of each home's basement would count toward FAR[4], the Department showed that on average, homes' actual FARs would rise by .05 with the changes to the definition of GFA, though for individual houses that figure varied (homes *without* the currently exempt elements – e.g. homes with no third stories or detached structures – would see minimal to no FAR increases, while homes with extensive detached spaces and third stories would see larger increases in actual FAR).

The FAR Working Group then explored possible modifications to the FAR limits. Referring to their finding that small lots were more likely to be constrained by FAR, the group concluded that a sliding scale of FAR limits, tied to lot size and zoning district, would provide a more nuanced system that gave owners of small lots some additional room, on average, for small additions (e.g. a mudroom or additional bathroom), but that protected neighboring properties from disproportionately large development.

[4] The Assessor's Database contains no information on basement grade, and this information is not available anywhere else for all residential properties in the City, so in its analysis the Planning Department made the assumption that 25% of each home's basement would count.

The Working Group presented its recommendations in its Final Report, dated May 2010 (Attachment A). The group then met several times with the Zoning and Planning Committee and Planning Department. Some of the proposals have since been modified slightly as the result of these discussions. The specific proposals being heard on Monday, January 10th are discussed below.

IV. Proposals

The Working Group's final recommendation, as presented in draft language in Attachment B, includes the following elements: an amended definition of "gross floor area" that captures more building elements, including detached structures, portions of third floors and attics, and portions of mass below first story, as well as new definitions ("porch," "carport," and "mass below first story"); and a new set of FAR limits presented as a sliding scale tied to lot size and zoning district, with a small FAR bonus reserved for new construction on old lots that meets new lot setback standards.

1) *Amended and New Definitions*

The proposal aims to eliminate exemptions from the current definition of gross floor area. Table 2 compares the elements counted under the current definition of GFA to those that would be counted under the proposal.

Table 2: Elements of Gross Floor Area, Current vs. Proposed

Residential Building Element	Current Definition of GFA	Proposed Definition of GFA
Basements, crawl spaces, and other above-grade elements below the first story	Excluded	Up to 50% of the floor area of the area below the first story, or "mass below first story," may count as GFA. Calculation involves measuring the elevation of the above-grade portion of walls below the first story, summing up the perimeter of those sections that exceed 4' in height, and dividing that number by the entire perimeter. This gives the percentage of the floor area of the mass below the first story to be counted toward FAR (capped at 50% of the floor area).
First and second floors	Included	Included
Atria/other vertical spaces	Included	Included
Space above the second story	Excluded if spaces meets the definition of a half story (up to 2/3 of the area of the floor below); included if it exceeds a half story	Included if it meets the dimensional definition in the Building Code of a habitable room (70 sq. ft. or more, with minimum ceiling heights of 7' on at least

		50% of its area and 5’ ceiling heights on the remainder).
Enclosed porches	Included only if heated	Included
Open porches, carports, port-cocheres	Excluded	Excluded
Attached garages	Included	Included
Detached garages and any spaces above	Excluded	Included Spaces above detached garages the first floor of a garage count as GFA if the c ceiling height is 7’ or more.
Other detached accessory buildings	Excluded	Included, with one exemption for a detached shed or other structure less than 120 sq. ft.

In addition to modifying the definition of GFA, the proposal would make a minor change to the definition of FAR itself to ensure that it captures ***all*** buildings on a lot, not just “a building,” as currently written.

Finally, the proposal recommends several new definitions to the Zoning Ordinance, for “carport,” “porch,” and “mass below first story.” The definition of porch distinguishes between enclosed (and therefore counted in GFA) and unenclosed (and therefore exempt from GFA), with the distinguishing feature being the use of any impermeable material such as glass at any time during the year. Thus, a porch that is permanently screened by mesh would be exempt, but a glassed-in porch would be included in GFA.

Regarding “mass below first story,” it is important to recognize that the definition applies to *any* cellar, crawl space, basement, or other enclosed space below a first story. The revised GFA definition would ensure that only portions of mass below the first story that add significantly to above-grade mass – by rising out of the ground four feet or more – will be used to assess FAR to the mass below grade.

2) New FAR Limits

The proposal also recommends a new set of FAR limits. As noted above, the Working Group recommends a general increase in FAR limits to account for the fact that the proposed change to the definition of GFA would result in higher actual FARs across the City on average. In addition, the Working Group recommends a more nuanced scale of FAR limits tied to lot size that can address some of the constraints on small lots while also ensuring that new construction respects its surroundings. The Working Group divided lots into seven categories of lot size. FAR limits are set for the beginning and end of each lot size category, and for lots sized in between, the FAR limit falls linearly (or, in some cases, simply remain the same). The sliding scale works as an income tax scale does, “taxing” the first portion of a lot (e.g. the first 5,000 sq. ft.) at one rate; then taxing the next portion (e.g. the next 2,000 sq. ft.) at another rate, etc. Although FAR limits are higher for smaller lots, smaller lots will never have more GFA

capacity than larger lots. The FAR limits selected after discussions with the Planning Department in early December are shown in Table 3.

Table 3: Proposed FAR Limits

Lot Size Category (sq. ft.)	FAR Range for Lot Size Category/Zone				
	SR1	SR2	SR3	MR1	MR2/MR3
0 to 4999	.46	.46	.48	.58	.58
5000 to 6999	.46 to .43	.46 to .43	.48	.58 to .53	.58 to .53
7000 to 9999	.43 to .33	.43 to .38	.48 to .41	.53 to .48	.53
10000 to 14999	.33 to .31	.38 to .33	.41 to .38	.48	.53 to .43
15000 to 19999	.31 to .28	.33	.38	.48 to .43	.43 to .38
20000 to 24999	.28 to .26	.33	.38 to .36	.43 to .38	.38
25000+	0.26	.33	.36	.38	.38

Under the proposal, the zoning text would spell out the ranges of FAR limits, as shown above, and provide the numerical calculation needed to derive the exact FAR limit for any given lot size. However, to facilitate use of the new FAR scheme, the Planning and Inspectional Services Departments would also make available on their websites an FAR calculator that, with the input of zoning district and lot size, would perform the calculation for the user.

3) FAR Bonus

After the Working Group's final report, the group and Planning Department agreed to add a small bonus reserved for new construction on "old lots" (those created before 1954) that meets "new lot" side setback standards (standards applicable to lots created after 1953). Thus, on an SR1 lot of 4999 sq. ft., an addition that conforms to stricter "new lot" setback standards would gain an additional .02 of FAR, making the FAR limit .48 rather than .46. Only the new construction would have to comply with the new setback (portions of the existing building may exceed the setback, but as long as a new addition complied, it could receive the bonus). To use the bonus, the homeowner or builder would not be able to simultaneously take advantage of *de minimis* rules in Sec. 30-21 and would not be allowed to create any new nonconformities with respect to other zoning controls, such as lot coverage or open space requirements.

The amount of bonus, .02, is relatively small for small lots; on a 5,000 sq. ft. lot, it is equivalent to 100 sq. ft., and on a 10,000 sq. ft. lot, 200 sq. ft., though on a 30,000 sq. ft. lot, it equals 600 sq. ft. The bonus could be larger than .02, but there are tradeoffs: a larger bonus may provide greater incentivize to owners of "old" (pre-1954) lots to place new construction within new side setback requirements, which is a positive for abutters; however, too much of a bonus could result in overly large additions or new homes, which could prove a negative for abutters because of their size. The Department is comfortable that a bonus of .02 is a reasonable starting point, and that it could be raised in the future if it is not providing sufficient incentive.

The proposed bonus differs in several ways from past and current FAR bonuses. For many years there was a .05 bonus for construction on pre-1954 lots when "new" (post-1953) lot setback and lot coverage requirements were met. This bonus was deleted in 2009, and in its place, a multi-tiered bonus was put into effect under Ord. Z-51; this is currently scheduled to remain in effect until February 28, 2011. This current bonus includes the following provisions:

- Existing homes (10 years old or more) are granted:
  - A .05 bonus above FAR limits as listed in Sec. 30-15 Table 1;
  - An additional .02 bonus for additions to existing homes on "old" (pre-1954) lots when the addition meets new setback requirements or extends no further into the setback.
- New construction of one or two-family structures: A separate bonus of .05 is available for entirely new construction on "old" (pre-1954) lots when "new" (post-1953) setback and lot coverage requirements are met.

The proposed bonus is simpler: a bonus of .02 above FAR limits for any construction (including new construction or an addition to an existing house) if post-1953 setback requirements are met. Note that there is no requirement that "new" *lot coverage* standards also be met.

4) ***Implementation***

The proposal recommends that the FAR changes take effect only after a long enough time period has passed during which homeowners and the building community can become accustomed to the changes and plan accordingly. The FAR Working Group has recommended a minimum of six months after adoption of the proposal to a maximum of 12 months. During this time, the proposal would extend the current "FAR bonus" so that it would sunset on the date that the new FAR regulations take effect.

In addition, though not a part of the draft language, the Working Group, Planning Department, and Inspectional Services Department (ISD) all agree that a system of monitoring and data collection is warranted should the Board adopt the proposed changes to FAR. In monitoring and assessing a new FAR system after it has been in place, ISD and Planning would be attuned to the same factors that led to the beginnings of FAR reform in 2009. Typically, negative examples of development, often construction deemed too large for a particular lot or neighborhood, are brought to the attention of elected officials, the Planning Department, or ISD. In turn, City staff assess whether such examples amount to a larger trend and/or reveal a previously unnoticed loophole in regulations. The absence of negative examples and concerns about overbuilding, either on particular lots (e.g. what some have called "monster houses") or in general, within a neighborhood, would be one measure of success that the FAR reform is working at protecting neighborhoods. Input from the architecture and building communities would also be invaluable in illuminating how professionals are designing under the regulations and whether any unintended consequences are at work.

On the other hand, a spike in the number of special permits for home expansions that are constrained by FAR could indicate that the FAR limits are too restrictive. The Planning Department does not have as a goal the elimination of special permit cases surrounding FAR, because there are circumstances where such review is appropriate. In general, however, the number of special permit cases should not rise from its current level (approximately a dozen per year) and ideally should fall.

In addition, the Inspectional Services and Planning departments would work together to develop a spreadsheet that collects detailed FAR data should the proposed FAR scheme be adopted. Whereas applicants for building permits and special permits currently calculate each element of FAR (e.g. ground floor, second floor, attic, etc.) but *report* only their total FAR, the departments could require that the calculation be broken down and submitted on a worksheet. These worksheets could be inputted into a spreadsheet that could then be used in efforts to analyze how the new FAR regulations are working.

V. Analysis

The Planning Department has based its analysis of the proposed FAR reform on several factors: ***usability***, encompassing how simple the scheme will be for users of the Zoning Ordinance; ***enforceability***, including how easy it will be for the Commissioner of Inspectional Services to interpret and enforce the new proposal; ***lack of loopholes and unintended incentives***; and ***likely impacts on neighborhoods and housing stock.*** The Department also considered the likely effects of the proposal on ***nonconformity rates*** in the different lot size categories.

1) *Usability and Enforceability*

Though the sliding scale of FAR limits is more complex than the current single FAR limit per zoning district, and despite the fact that users will need to conduct either a more complex calculation or use an on-line calculator to ascertain the FAR limit for their property, overall, the proposed changes make FAR regulations clearer and will eliminate current loopholes, making it easier to enforce the proposed regulations. By counting more elements that add visible mass to residential buildings, the proposed regulations will also ensure that FAR fulfills its function as a dimensional control responsible for mass above grade, not just *some* elements of mass above grade.

2) *Design Incentives*

The Working Group aimed to eliminate exemptions in the current FAR regulations; thus, the proposal would count under GFA third floors that do or could house habitable space (as defined by the Building Code), porches enclosed by impermeable materials (as opposed to open or screened elements that let light and air through and add less to the appearance of

mass), basements and crawl spaces rising more than four feet out of the ground, and most detached structures. The Department agrees that fewer exemptions will make the regulations fairer and more likely to achieve their goal of regulating mass above grade.

In crafting the definitions of GFA in the proposal, the FAR Working Group elected to pursue a "neutral" approach to design, so that FAR regulations do not have any *deliberate* design incentives embedded in them. (In contrast, other cities have used FAR exemptions or discounts to encourage or discourage certain designs; for example, one New York community uses FAR to encourage the placement of mass to the rear of houses rather than up against the street.) However, it is still possible that a "neutral" regulation can still incentivize a particular design. For example, under current zoning, there is an incentive to detach garages, as detached garages are free of FAR; under the proposal, there would be no such incentive, but given that builders tend to attach garages on new homes wherever possible, attached garages could occur more often where lot size and design allow since the decision is "FAR-neutral."

3) ***Neighborhood Preservation***

Much of the concern over expansions and new construction in recent years has involved not just mass, but also quality of design and materials, compatibility with neighboring houses and the historical style of neighborhoods, and concern over the loss of smaller housing units. While these are valid concerns that are also mentioned numerous times in the *Comprehensive Plan*, the Planning Department concurs with the Working Group that there is little that FAR regulations by themselves can do to address them effectively, FAR not being a historic preservation, housing preservation, or aesthetic tool.

However, while a poor tool to actively address aesthetic or preservation concerns, FAR does now and will continue to have an impact on the fabric of residential neighborhoods. The Department examined the potential impact of the proposed FAR reform on housing type and neighborhood character in general and also looked particularly at neighborhoods characterized by small and larger lots, as well as the potential impact on smaller homes.

Potential effect on housing style and neighborhood type. By eliminating exemptions in the current definition of GFA that allow certain features of mass above grade, such as detached structures, half stories above the second floor, and walk-out or garage basements, to be built free of FAR, the proposal supports neighborhoods by preventing out-of-scale construction while also offering clearer and guidelines to property owners. However, in eliminating loopholes, *the proposal is not neutral when it comes to housing type*. Houses that do not have the features that are currently exempted from FAR, such as detached garages, walkout basements, etc. would benefit relatively more in terms of additional as-of-right development capacity than those homes that currently have many of these features: when FAR limits are increased to account for the average rise in actual FAR that will accompany the definitional changes the Working Group proposes, but an individual home's

actual FAR remains the same under the current and proposed definitions of gross floor area, the proposal would give these homes relatively more room to grow. In general, many of the homes we believe will gain relatively more FAR capacity are post-War mid-century ranches and colonials that currently lack third stories or detached garages, while those what would gain relatively less or might even become more FAR constrained than they are currently (or even nonconforming) are pre-War Victorians and early 20th century styles. As it is today, those neighborhoods with significant expansion potential through FAR have greater potential to change than those that are more FAR-constrained as a result of smaller lot sizes combined with larger existing housing stock that has exhausted its development potential.

Effect on smaller lots. As noted earlier, the Working Group proposal raises FAR limits slightly more on smaller lots to alleviate some of the constraints owners of those lots have in making minor additions to their properties. In initial discussions about the proposed FAR reform, questions have arisen as to whether the sliding scale gives too much or too little additional GFA capacity to smaller lots than could be built under current zoning. The Planning Department conducted an analysis to estimate current "undeveloped potential" – the amount of GFA that could be built if every home in the City was built to the FAR limit – under current and the proposed scenarios. This analysis was fraught with the challenge that the proposal recommends changing the definition of GFA, so comparing GFA under current zoning to GFA under the proposal is a bit like comparing apples and oranges. Table 4 should be viewed with this caveat in mind, and the understanding that in the current scenario, in addition to the GFA noted in the chart, builders and homeowners can also build those features exempt from FAR, if other zoning requirements allow; under the proposal, these features would be counted under FAR and in Table 4 are included in the figures on undeveloped capacity.

Taking into account difficulties comparing the current and proposed scenarios and data limitations, the Department is satisfied that the ranges of undeveloped capacity are acceptable. When one compares the proposal to current zoning with the current .05 bonus (which is available for additions to existing homes as well as new construction on old lots that meet new setback requirements), the estimated changes appear fairly modest, enough to give some benefit to owners of small lots without burdening abutters and neighbors with overly large additions.

Effect on larger lots. Many larger lots could see a decline in developable capacity, not out of an intention to redistribute capacity to smaller lots, but rather because the current .05 bonus is so generous on large lots (on a 30,000 sq. ft. lot, for example, the bonus grants 1,500 sq. ft.) and because larger lots often have larger homes that have many of the features (attics, detached structures, etc.) that will be counted under the proposal. In general, larger lots still retain significant development potential.

Table 4: Estimates of Changes in GFA[5] (*NOTE: definition of GFA differs under current and proposed scenarios, so comparisons are not direct*)

		Change in Development Capacity - Compared to Current Zoning WITHOUT BONUS					Change in Development Capacity - Compared to Current Zoning WITh .05 BONUS				
Lot Size Categories (Sq. Ft.)	Number of Lots	Current Average Undeveloped GFA for Conforming Lots	Proposed Average Undeveloped GFA for Conforming Lots	Increase in Developable GFA Between Current and Proposed	Percent Undeveloped GFA Under Current Policies	Percent Undeveloped GFA Under Proposed Policies	Current Average Undeveloped GFA for Conforming Lots	Proposed Average Undeveloped GFA for Conforming Lots	Increase in Developable GFA Between Current and Proposed	Percent Undeveloped GFA Under Current Policies	Percent Undeveloped GFA Under Proposed Policies
ALL	**1,599**	2,837	2,878	41	38%	33%	3,634	2,878	(756)	46%	33%
0-4999	2	NA	NA	NA	*0%*	0%	NA	NA	NA	*0%*	0%
5000-6999	18	245	758	513	5%	17%	448	758	310	10%	17%
7000-9999	83	327	607	280	4%	10%	465	607	142	10%	10%
10000-14999	294	628	933	305	11%	12%	948	933	(15)	20%	12%
15000-19999	489	1,172	1,594	421	22%	24%	1,772	1,594	(178)	33%	24%
20000-24999	186	1,816	1,735	(80)	30%	23%	2,791	1,735	(1,056)	41%	23%
25000+	527	4,831	5,084	253	51%	44%	6,695	5,084	(1,611)	59%	44%
ALL	**7,799**	1,470	1,513	42	31%	27%	1,887	1,513	(374)	39%	27%
0-4999	108	251	315	64	1%	4%	196	315	118	2%	4%
5000-6999	655	234	473	240	4%	10%	354	473	119	10%	10%
7000-9999	1,990	489	738	249	12%	15%	752	738	(14)	21%	15%
10000-14999	3,314	1,147	1,321	174	28%	26%	1,623	1,321	(301)	37%	26%
15000-19999	1,149	2,098	2,004	(94)	40%	33%	2,845	2,004	(841)	48%	33%
20000-24999	308	3,094	2,961	(133)	46%	38%	4,158	2,961	(1,197)	54%	38%
25000+	275	5,923	5,788	(135)	58%	51%	7,562	5,788	(1,774)	64%	51%
ALL	**6,217**	1,414	1,615	200	38%	37%	1,762	1,615	(147)	45%	37%
0-4999	436	265	432	167	8%	12%	374	432	58	14%	12%
5000-6999	1,366	490	806	316	17%	22%	706	806	100	25%	22%
7000-9999	2,652	990	1,374	384	32%	35%	1,327	1,374	47	39%	35%
10000-14999	1,337	1,911	1,992	81	46%	41%	2,447	1,992	(454)	52%	41%
15000-19999	261	3,455	3,270	(186)	58%	51%	4,254	3,270	(984)	63%	51%
20000-24999	85	4,690	4,516	(173)	61%	54%	5,684	4,516	(1,168)	66%	54%
25000+	80	10,160	9,564	(595)	76%	70%	11,976	9,564	(2,411)	79%	70%
ALL	**3,115**	1,479	1,627	148	34%	31%	1,764	1,627	(137)	40%	31%
0-4999	433	328	581	252	8%	14%	428	581	153	12%	14%
5000-6999	883	591	875	283	15%	19%	750	875	125	21%	19%
7000-9999	1,028	1,003	1,291	288	27%	27%	1,339	1,291	(47)	34%	27%
10000-14999	566	2,067	2,271	204	44%	40%	2,607	2,271	(336)	50%	40%
15000-19999	127	3,974	4,009	35	58%	51%	4,820	4,009	(811)	62%	51%
20000-24999	50	6,054	5,333	(720)	69%	60%	7,144	5,333	(1,811)	73%	60%
25000+	28	10,234	8,718	(1,517)	78%	70%	11,824	8,718	(3,106)	81%	70%
ALL	**939**	1,008	1,291	282	25%	27%	1,218	1,291	73	31%	27%
0-4999	347	338	555	218	7%	11%	408	555	147	10%	11%
5000-6999	282	586	936	350	17%	21%	776	936	160	24%	21%
7000-9999	218	1,148	1,594	447	33%	34%	1,518	1,594	76	40%	34%
10000-14999	83	2,234	2,634	399	46%	44%	2,817	2,634	(183)	51%	44%
15000-19999	9	3,698	3,134	(564)	56%	46%	4,439	3,134	(1,305)	60%	46%
20000-24999	0										
25000+	0										
ALL	**43**	994	1,270	276	21%	19%	1,169	1,270	101	27%	19%
0-4999	8	211	560	349	3%	8%	443	560	117	6%	8%
5000-6999	12	431	1,009	578	6%	8%	393	1,009	615	11%	8%
7000-9999	15	719	949	231	19%	17%	1,068	949	(118)	27%	17%
10000-14999	7	1,953	2,182	229	44%	39%	2,504	2,182	(322)	51%	39%
15000-19999	1	1,672	1,644	(28)	28%	25%	1,672	1,644	(28)	28%	25%
20000-24999	0										
25000+	0										

Smaller houses. In discussions about FAR, questions about the impact of the proposed FAR reform on the City's smaller housing stock have been raised. In particular, would FAR reform allow small houses, the City's traditionally more affordable stock, to expand to the point where they are no longer affordable or suitable as starter or empty nester housing? The Planning Department's analysis suggests that additional undeveloped

[5] In general, when comparing existing zoning to the proposal, it is useful to look at *current FAR limits with **no** bonus* when considering new construction on new lots, and to consider *current FAR limits **with** the .05 bonus* when considering additions to existing houses or to new construction on old lots that abides by new setback and lot coverage standards. Also, note that an additional .02 FAR bonus is available for certain

capacity will not be so large as to significantly change the use of smaller houses, while it may in fact allow some of those houses to modernize (with an extra bathroom, for example) or become more energy efficient (via a mudroom or enclosed entry).

5) Nonconformity Rates

The Planning Department also considered the likely effect of the proposed sliding scale on nonconformity rates with respect to FAR. The Planning Department estimated nonconformity rates under the proposal and compared them to nonconformity rates under current zoning, assuming none of the current bonuses are used; we also compared them to current rates assuming a .05 bonus could be used by houses 10 or more years old. The Department is satisfied that these estimates do not result in significant jumps in either direction, though we note that data limitations mean that only practical experience will reveal the true effect of the proposal on nonconformity rates. These comparisons are provided in Table 5 below.

Table 5: Estimates of Nonconformity Rates[6]

	Lot Size Category (Sq. Ft.)	Total Number of Lots	Current Nonconformity Rate, Assuming No Bonus	Current Nonconformity Rate, Assuming .05 bonus for houses 10 or more years old	Proposal Nonconformity Rate
SR1	**ALL**	**1,599**	**26%**	**14%**	**25%**
	0-4999	2	100%	100%	100%
	5000-6999	18	72%	61%	39%
	7000-9999	83	75%	43%	45%
	10000-14999	294	49%	24%	50%
	15000-19999	489	27%	14%	24%
	20000-24999	186	12%	8%	22%
	25000+	527	0%	0%	9%
SR2	**ALL**	**7,799**	**23%**	**12%**	**20%**
	0-4999	108	95%	84%	78%
	5000-6999	655	70%	40%	41%
	7000-9999	1,990	37%	16%	28%
	10000-14999	3,314	14%	6%	16%
	15000-19999	1,149	4%	2%	10%
	20000-24999	308	1%	1%	7%
	25000+	275	0%	0%	2%
SR3	**ALL**	**6,217**	**15%**	**8%**	**11%**

existing houses now, and a .02 bonus is proposed and discussed below for some houses under the proposal; both are excluded from the analysis in Table 4.

[6] An additional .02 FAR bonus is available for certain existing houses now, and a .02 bonus is proposed and discussed below for some houses under the proposal; both are excluded from the analysis in Table 5.

	0-4999	436	57%	37%	42%
	5000-6999	1,366	27%	16%	20%
	7000-9999	2,652	10%	4%	6%
	10000-14999	1,337	3%	1%	4%
	15000-19999	261	0%	0%	1%
	20000-24999	85	0%	0%	4%
	25000+	80	0%	0%	0%
MR1	**ALL**	**3,115**	**23%**	**15%**	**19%**
	0-4999	433	61%	47%	44%
	5000-6999	883	38%	23%	27%
	7000-9999	1,028	11%	5%	14%
	10000-14999	566	2%	1%	2%
	15000-19999	127	1%	1%	1%
	20000-24999	50	0%	0%	0%
	25000+	28	0%	0%	0%
MR2	**ALL**	**939**	**38%**	**29%**	**31%**
	0-4999	347	71%	59%	57%
	5000-6999	282	30%	19%	27%
	7000-9999	218	8%	6%	8%
	10000-14999	83	5%	5%	5%
	15000-19999	9	0%	0%	0%
	20000-24999	0			
	25000+	0			
MR3	**ALL**	**43**	**37%**	**23%**	**40%**
	0-4999	8	75%	75%	63%
	5000-6999	12	67%	25%	75%
	7000-9999	15	13%	7%	20%
	10000-14999	7	0%	0%	0%
	15000-19999	1	0%	0%	0%
	20000-24999	0			
	25000+	0			

6) Other Options

In its work over the last year and a half, the Working Group analyzed a number of alternatives to the sliding scale and FAR limits ultimately presented in this petition. The sliding scale provided a much more nuanced approach to the alternatives. For example, simply raising current FAR limits by .05 to account for the change in the definition of "gross floor area" did not address the particular constraints felt by owners of small lots, but it also resulted in more nonconformities with respect to FAR. Tying FAR limits to both zoning districts and lot size categories and instituting the sliding scale allows the FAR limits to be more tailored to the current built environment of the City, and reduce nonconformity rates with respect to FAR, provide modest increases in capacity to the most

constrained lot sizes, and protect neighborhoods from overdevelopment. As before, the proposal maintains the option of special permits for projects that exceed FAR limits but that are consistent with and not in derogation with the size, scale, and design of other structures in the neighborhood.

VI. Recommendations

The Planning Department recommends adoption of the proposed FAR reform. The proposal is the result of an unprecedented amount of analysis and testing by a highly-qualified and dedicated citizen group. The proposal is also based on the best data available in the City about current FAR and the likely impact of the new regulations.

The proposal has several clear benefits: it would eliminate loopholes in the definition of "gross floor area," so it would be less possible to exploit definitions to build floor area beyond what is allowed by the Zoning Ordinance. The proposed definitions should make implementation by Inspectional Services clearer and easier. At the same time, the proposal would raise FAR limits to account for the rise in houses' actual FARs that would result from the new definition, and will give smaller lots a modest increase in FAR to accommodate small expansions that should not burden neighbors.

There is admittedly some uncertainty surrounding the proposal, and data limitations make it impossible to predict its precise outcomes across the City. The Planning Department therefore embraces the idea of careful data collection and monitoring of the new FAR regulations, if adopted, and is ready to work with the Commissioner of Inspectional Services to set up systems for collecting and analyzing data, and to facilitate usage by members of the public by creating an online FAR calculator and producing explanatory materials as needed.

One item that was not dealt with by the Working Group or Planning Department to date is the issue of FAR limits for rear lot developments, which are currently covered in Sec. 30-15 Table 4. ***The Department recommends that this issue be analyzed and addressed in the near term***, before the changes proposed in this petition become effective (if adopted) six to twelve months in the future.

FAR Working Group Final Report

Executive Summary

The FAR Working Group was appointed in June 2009 to the study floor area ratio (FAR) in the City of Newton and to propose amendments to the Zoning Ordinance designed to ensure that FAR regulations more accurately reflect current conditions, are easier to apply and enforce, and result in new construction that is in keeping with surrounding structures and the *Newton Comprehensive Plan*.

The Working Group met 14 times from July 2009 to March 2010, including an interim presentation to the Zoning and Planning Committee of the Board of Aldermen. The group first conducted field work and data analyses to assess current, actual FAR in neighborhoods across the City, finding that 1) because FAR is in part a function of the definition of gross floor area (GFA), the exemption of certain features from the calculation of GFA allow significant residential living space to be built free from FAR; and 2) because FAR is in part a function of lot size, many homes on small lots, particularly those that are older and in need of updating, are particularly restricted from making even small additions.

From the findings of these efforts, the Working Group developed proposals to ensure the fairer application of FAR limits through the removal of existing exemptions in the definition of gross floor area, and to address the restricted development potential on smaller sized lots through a graduated system of FAR limits tied to lot size categories in each zone.

Members of the group and City staff, as well as architects from the Newton community, then tested these proposals to examine their potential impact on actual residential development in the City. The Working Group made modifications based on the testing results. The final proposals consist of two separate but related parts: a fairer and more inclusive definition of “gross floor area” and a sliding scale of FAR limits tied to lot size categories intended to give smaller lots a modest increase in FAR and reduce FAR nonconformities on these lots, while also keeping overall opportunities for expanded development in the residential neighborhoods of the City roughly consistent to what is possible today.

FAR Working Group Final Report

I. Residential FAR in Newton and Appointment of the FAR Study Group

Floor Area Ratio, or FAR, is the ratio of the gross floor area of a building to its lot size, and is a measure of building mass.[1] FAR limits were added to the dimensional controls in residential zoning districts in Newton in 1997 as a response to concerns about the demolition of smaller homes and their replacement with larger-scale dwellings that many felt were out of character with their surroundings. At the time FAR was adopted, FAR limits were made applicable to new residential construction and to residential construction when over 50% of an existing house was demolished.

In the years after the adoption of residential FAR limits, many public officials and citizens raised concerns that Newton's FAR limits were easily and lawfully exceeded when homeowners and developers took advantage of the numerous exemptions from FAR limits found in the definition of gross floor area and in what was informally referred to as the "50% demo provision" to maximize their development potential. The latter provision (previously located in Sec. 30-15, Table 1, Footnote 7) was particularly problematic: as long as less than 50% of an existing home was demolished, there was no FAR limit on what could then be built on the site, other than limits imposed by other dimensional controls. Though intended to facilitate the creation of small additions, such as mudrooms or bathrooms, in practice it allowed very large expansions of existing homes, often to sizes that significantly exceeded FAR limits for new construction in the zoning district.

In March 2009, the Board passed Ordinance Z-44, which deleted Footnote 7, including the 50% demo provision, in its entirety, thereby making FAR limits applicable to *all* residential development, including expansions of existing dwellings. As a result of this change, completely new homes as well as renovations of or additions to existing homes *both* have to comply with FAR limits.

In the wake of the adoption of Z-44, a number of homeowners who were planning to make small additions using the 50% demo provision learned that they would be unable to proceed without a special permit[2] because their homes either already exceeded FAR limits or would exceed them with their proposed additions. To aid homeowners in these situations, the Board then passed Ord. Z-51, which grants an FAR bonus of .05 to .07 for qualifying residential properties; this provision is set to

[1] Please see Attachment 1 for a graphic depiction of floor area ratio. An FAR limit of "1" means that on a 10,000 sq. ft. lot, a 10,000 sq. ft. building could be built; an FAR limit of .5 would allow a 5,000 sq. ft. building to be built on that same lot. In Newton, current residential FAR limits range from .2 to .4 depending on the zoning district and age of the lot.

[2] Under the City's Zoning Ordinance, an applicant may seek a special permit from the Board of Aldermen to exceed FAR, as long as the proposed structure is consistent with and not in derogation of the size, scale and design of other neighborhood structures (see Sec. 30-15(u)(4)).

sunset on July 31, 2010. In June of 2009, the Board also passed a resolution requesting that the Director of Planning and Development conduct a study of residential FAR in Newton to advise on how the zoning ordinance might be amended with regard to FAR limits.

As a result of this resolution, the "FAR Working Group" was appointed in June 2009 with the goals of assessing existing FAR limits in residential neighborhoods of the City and making recommendations for amending the zoning ordinance to ensure that FAR regulations more accurately reflect current usage and ensure that new construction is in keeping with surrounding structures and the *Newton Comprehensive Plan*. Members of the Working Group were appointed by the President of the Board of Aldermen and the Mayor. The members of the group, all residents of Newton, include:

- K. Edward Alexander, American Society of Architects, Emeritus
- Chris Chu, Architect (alternate member)
- Henry Finch, Architect
- Thomas Greytak, Homeowner
- Treff LaFleche, Architect
- Peter Sachs, Architect
- Alan Schlesinger, Attorney

The Working Group was staffed by Mike Kruse, Director of the Department of Planning and Development (until January 2010), Candace Havens, Interim Director (beginning January 1, 2010), and Jennifer Molinsky, Principle Planner. Commissioner of Inspectional Services John Lojek also participated in the work of the group.

II. Methodology & Analysis

The Working Group met 14 times from July 14, 2009 to March 16, 2010, including one presentation of its interim results to the Zoning and Planning Committee in September, 2009. In October, 2009, the group also shared draft proposals with a group of Newton architects in a meeting organized by members of the Working Group.

In reaching the conclusions presented in this report, the Working Group followed the following process:

1) Initial research and analysis
2) Development of preliminary proposals, testing, and
3) Formulation of final proposals

These stages, and the results of each, are described below.

Stage 1: Initial Research and Analysis

The Working Group first sought to assess how the existing fabric of residential development compares to the FAR limits in the Zoning Ordinance. The group aimed to understand the character and evolution of existing neighborhoods; to evaluate the actual FAR of the dwellings within these neighborhoods, including the variation in actual FAR within and among City neighborhoods; and to identify the locations where the actual FAR of the existing residential fabric already exceeds FAR limits (most likely because dwellings predated FAR limits).

To facilitate these analyses, the Planning Department used City Assessor's data to estimate[3] the current FAR of every single-, two-, and three-family dwelling in the City in the Single-Residence (SR) 1, 2, and 3 districts and the Multi-Residence (MR) 1, 2, and 3 districts.[4] This information was placed on 20 neighborhood maps (using neighborhood divisions created by the Assessing Department) whose color codes identified the extent to which each home fell below or exceeded FAR limits. Working Group members and staff then spent time in each of the residential neighborhoods, noting development patterns and comparing the FAR maps to the actual built environment, and then reconvened to share and discuss their findings. Staff also prepared a variety of analyses describing actual FAR in each residential zoning district. Finally, the Planning Department provided data on specific cases, and the Inspectional Services Department supplied information on the practical difficulties of implementation of FAR regulations, as well as evidence of how FAR rules have been manipulated to create dwellings that are larger than those in their surrounding areas.

The initial analyses led to the following findings and conclusions:

- ***The Working Group agreed that the purpose of FAR limits is to regulate above-grade building mass***. Its role, therefore, is distinct from, but complementary to, the City's other dimensional controls, which include:

  – Height controls, story, ½ story regulations, which concern proportion;
  – Maximum lot coverage and minimum open space requirements, which concern open space;
  – Setback requirements, which regulate placement on site; and
  – FAR, which regulates mass.

- ***Exemptions of certain elements from the definition of gross floor area (and therefore from FAR calculations) have led to unintended design results and have provided incentives for creative manipulation of FAR rules***. For example, the exemption of half stories from FAR calculations[5] have

[3] All figures in this document are best estimates based on Assessor's data.
[4] Condominiums, as well as multifamily dwellings over three units, were excluded from the analysis, as were residences in the MR4 district (which applies only in one unique area in the City).
[5] Until November 3, 2008, all half story spaces were exempted from FAR calculations, but Ord. Z-35 amended zoning so that half story spaces immediately above the first story are now included in FAR

encouraged the inclusion of half stories over garages and above the second floor to provide living areas "free" from FAR calculations. Other exemptions include those for above-grade basement areas (encouraging walk-out basements and basement garages, even where it has been necessary to carve out and terrace the landscape to make these possible) and detached structures (including large detached garages with living space above). Because of these exemptions, houses with equivalent FAR, as calculated by the City, may have very different actual floor areas.

- ***The Working Group's field visits and review of the data confirmed that, in all zoning districts, there are a larger number of houses that are nonconforming with respect to FAR (i.e., they exceed FAR limits) on smaller lots than on larger lots, particularly on smaller lots that were created before 1953 when minimum lot size standards became stricter***. For those houses that are at or over FAR limits, a small addition (e.g. a single room, a mudroom, or bathroom) would require a special permit, a process that is often perceived as costly and uncertain. As shown in the table below, typically, the nonconformity rate on larger lots is much lower and the potential to expand, even through significant building projects, is higher.

Parcels Nonconforming with Respect to FAR

Lot Size Category (sq. ft.)	SR1 Number of Parcels	SR1 Nonconforming with Respect to FAR	SR2 Number of Parcels	SR2 Nonconforming with Respect to FAR	SR3 Number of Parcels	SR3 Nonconforming with Respect to FAR
ALL	1,600	25%	7,813	22%	6,243	14%
0-4999	2	100%	109	94%	438	53%
5000-6999	18	72%	655	67%	1,374	25%
7000-11999	202	60%	3,954	26%	3,520	8%
12000-14999	175	45%	1,360	9%	479	1%
15000-19999	490	26%	1,151	4%	265	0%
20000-24999	186	13%	308	1%	86	0%
25000+	527	0%	276	0%	81	0%

	MRI Number of Parcels	MRI Nonconforming with Respect to FAR	MR2 Number of Parcels	MR2 Nonconforming with Respect to FAR	MR3 Number of Parcels	MR3 Nonconforming with Respect to FAR
ALL	3,260	22%	1,023	38%	47	34%
0-4999	445	58%	373	72%	8	75%
5000-6999	906	37%	301	32%	12	50%
7000-11999	1,069	10%	243	9%	16	19%
12000-14999	610	2%	94	5%	10	10%
15000-19999	146	2%	12	0%	1	0%
20000-24999	54	0%	0		0	
25000+	30	0%	0		0	

calculations. Half story spaces in detached structures or above the second story are still exempt from FAR calculations.

- ***The Working Group found the City's existing residential zoning districts too blunt to account for the range of neighborhood character, yet acknowledged the need, at present, to develop FAR recommendations that work within existing zones.*** The Group found that, as expected, Newton is distinguished by the richness of its residential architecture and also by the varied nature of its neighborhoods, which developed at different times and reflect unique histories, building styles, and densities. There is significantly less variation among the City's zoning districts, however: all the City's single-family neighborhoods are divided into only three Single Residence zoning districts. For example, much of Oak Hill Park, a neighborhood characterized by post-war ranches, many of which are well below FAR limits, is zoned SR2, as are the majorities of Newton Highlands and Newton Centre, where many older Victorian homes exceed FAR limits. Working within existing zoning designations presents challenges to preserving the character of each neighborhood.

- ***The Working Group found that a number of elements of massing can not be regulated by FAR limits***, or indeed, by other dimensional controls, but that these nonetheless influence neighborhood character. These included quality of design, compatibility of design with neighboring structures, topography, and landscaping.

Out of their research and the findings noted above, the Working Group coalesced around the goals of developing recommendations for zoning amendments that would:

1) Ensure a <u>fairer application of FAR limits</u> by more clearly defining what is included in the calculations of gross floor area and by eliminating exemptions to gross floor area; and

2) Ensure a <u>fairer distribution of massing</u> to ensure that smaller lots have some opportunities for minor expansions that would be compatible with the existing character within their neighborhoods.

<u>Stage 2: Preliminary Proposals & Testing</u>

With these goals in mind, the Working Group moved into its second stage of work, the development of preliminary proposals to revise the definition of gross floor area and FAR limits. This section briefly discusses the Working Group's processes, while the final proposals are presented in Part III below.

Gross Floor Area Definition

The first proposal centered on amending the definition of gross floor area (GFA). The group focused particularly on 1) clarifying existing language and 2) removing

exemptions to the calculation of GFA, including exemptions for above-grade portions of basements, third floor space, enclosed porches, and detached structures. Once language had been drafted to amend the definition of GFA, the architects on the Working Group tested the proposed language on their own projects to assess how the new language, if adopted, would change FAR calculations for individual dwellings. City staff did the same, by assessing how amended language would have changed FAR calculations on recent applicants for special permits to exceed FAR limits. Finally, several Working Group members reached out to their colleagues in the architectural community and invited them to apply the draft language to their recent projects to assess the difference it would have on FAR calculations and design incentives. The testing process resulted in refinements to the draft language.

At the same time, City staff prepared analyses to show the estimated effect of the draft proposals on *all* dwellings in the City. Again using Assessor's data, the Group was able to see the average rise in actual FAR calculations that would result from eliminating many of the current exemptions in how FAR is calculated. By assuming that 25% of each home's basement would "count" toward FAR, the Group could see that across the City, the changes would result in a .05 rise in actual FAR, though for individual houses, the precise figure varied depending on how much square footage on the property was currently exempt from GFA calculations and would be counted under the proposal.

FAR Limits

The Working Group assessed FAR limits by incorporating a rise in all zones to account for the changes to the definition of GFA described above, and then examined how best to address the challenges on small lots. The Group considered simply raising FAR limits in each zoning district, but discarded the idea because it would open more development capacity on medium and larger sized lots, where high percentages of dwellings were already significantly below FAR limits (and, indeed, since FAR is based on lot size, the absolute expansion possibility on larger lots would increase significantly more than it would on smaller lots). The Working Group ultimately determined that the only way to address the limitations on small lots without opening development capacity on larger lots was to *tie FAR limits directly to lot size.* Staff then developed various prototypes of sliding scales, where FAR limits are higher for smaller lots and then fall as lot size increases. (It is important to note, that because FAR is itself a function of lot size, larger lots still have more absolute development capacity under all schemes the group considered.)

The Working Group used three main criteria to assess each iteration of the sliding scale:

- The scale's effect on a sample group of houses known to the architects;

- The scale's effect on rates of nonconformity with respect to FAR, including overall rates, rates within each zone, and rates within each lot size category; and
- The scale's effect on the amount of undeveloped capacity, including the average undeveloped capacity on each lot, within each district, and within each lot size category.

The Working Group's final proposal for a sliding scale of FAR limits is proposed in Section III below.

Stage 3: Formulation of Final Proposals

The Working Group's iterative process of analyses, testing, and refinement of proposals led to the final set of draft amendments that are presented in Section III.

III. Proposals

The Working Group's proposals to change the definition of "gross floor area" and amend residential FAR limits, as well as to phase in the proposed changes, are presented below.

Gross Floor Area

The proposed definition of "floor area, gross" would remove existing exemptions for attic and half story space, above-grade portions of basements, some enclosed porches, and detached structures. The actual proposed language is included as Attachment 2 and includes amendments to the definition of "floor area, gross" as well as the addition of several new definitions for "porch," "carport," and "mass below first story." The table below compares the elements included in the current definition of GFA to those in the Working Group's proposal.

Elements of Gross Floor Area

	Current Definition of GFA	Proposed Definition of GFA
Basements	Excluded	Included: a percentage of "mass below first story," which may include basements, crawl spaces, and other above-grade features lying below the first story, that exceed a standard exemption for foundation walls. In no event can more than 50% of the floor area of an area below the first story be counted toward FAR.
First and second stories	Included	Included
Atria / other vertical spaces	Included	Included
Space above the second story	Excluded if space meets the definition of half story; included if it exceeds maximum space to be counted as a half story	Included if it meets the dimensional definition in the Building Code of a habitable room (70 sq. ft. or more, with min. ceiling heights of 7' on at least 50% of its area and 5' ceiling heights on remainder)
Enclosed porches	Included only if heated	Included
Open porches, carports, port cocheres	Excluded	Excluded
Attached garages	Included	Included
Detached garages and any space above the first floor with a ceiling height of 7 feet or more	Excluded	Included
Other detached structures	Excluded	Included, with one exemption for a detached shed or other structure less than 120 sq. ft.

FAR Limits

The Working Group is proposing a sliding scale of FAR limits for each of the three SR and MR districts it studied. As noted above, the scale takes into account the average rise in actual FARs resulting from the changes to the definition of gross floor area and also addresses the specific challenges faced by small lots, as well as the need to ensure that new development respects its surroundings.

In all residential zoning districts, the Working Group proposes that lots be divided by size into seven categories. FAR limits are set for the very beginning and very end of each category. For lot sizes falling in the between the two ends of a category, the FAR limit will vary smoothly, that is, linearly. This is the same approach used with the

federal income tax rates. It insures that a small difference in lot size does not give rise to a significant difference in allowed FAR. The proposed scales are shown below:

Proposed Sliding FAR Scale

	SR1	SR2	SR3
Lot Size Category (sq. ft.)	FAR Range for Lot Size Category	FAR Range for Lot Size Category	FAR Range for Lot Size Category
0-4999	.48 to .48	.48 to .48	.50 to .50
5000-6999	.48 to .45	.48 to .45	.50 to .50
7000-11999	.45 to .35	.45 to .40	.50 to .43
12000-14999	.35 to .30	.40 to .35	.43 to .40
15000-19999	.33 to .30	.35 to .35	.40 to .40
20000-24999	.30 to .28	.35 to .35	.40 to .38
25000+	.28	. 35	.38

	MR1	MR2/MR3
Lot Size Category (sq. ft.)	FAR Range for Lot Size Category	FAR Range for Lot Size Category
0-4999	.60 to .60	.60 to .60
5000-6999	.60 to .55	.60 to .55
7000-11999	.55 to .50	.55 to .55
12000-14999	.50 to .50	.55 to .45
15000-19999	.50 to .45	.45 to .40
20000-24999	.45 to .40	.40 to .40
25000+	.40	.40

The table above shows that a 12,000 sq. ft. lot in an SR1 district would have an FAR limit of .35, while, at the other end of the lot size category, a lot of 14,999 sq. ft. would have an FAR limit of .3. The chart also shows that a 13,500 sq. ft. lot would have an FAR limit somewhere between these two numbers (it would actually be .33 according to the FAR calculator).

The Working Group considered how this system, which is more nuanced than the current single FAR per zoning district, can be made user friendly. The group suggests that a table of values of FAR limits at specific lot sizes can be given in the Zoning Ordinance text along with the statement that the FAR limits vary proportionately between these points. An online, user-friendly calculator for computing the exact FAR limit applicable to a particular lot can be made available on the City's website so that individuals can quickly figure their exact FAR limit.

The Working Group arrived at these new FAR limits based on their professional judgment about the amount of "mass above ground" that lots in each zoning district can support and still maintain the look and feel consistent with current development and with the *Newton Comprehensive Plan*. As a simple reality check, to see that the new limits would not make a major quantitative change within the city, the group

looked at the effect these changes would have on the nonconformity rate and the amount of allowed but unrealized floor space in the City.

As the following table reveals, the proposed sliding FAR scale reduces the nonconformity rates overall and particularly on smaller lots, so that more lots are now conforming with FAR limits. (Some lots may be *just* conforming; that is, their actual FAR may fall just under the limit, so conformity does not necessarily equal significant expansion potential.)

Percent Nonconforming with Respect to FAR, SR Districts

Zone	Lot Size Category	Total Number of Parcels	Current Nonconforming With Respect to FAR	Proposed Nonconforming With Respect to FAR
SR1	ALL	1,600	25%	20%
	0-4999	2	100%	100%
	5000-6999	18	72%	33%
	7000-11999	202	60%	30%
	12000-14999	175	45%	39%
	15000-19999	490	26%	25%
	20000-24999	186	13%	15%
	25000+	527	0%	5%
SR2	ALL	7,813	22%	13%
	0-4999	109	94%	72%
	5000-6999	655	67%	34%
	7000-11999	3,954	26%	13%
	12000-14999	1,360	9%	7%
	15000-19999	1,151	4%	7%
	20000-24999	308	1%	4%
	25000+	276	0%	1%
SR3	ALL	6,243	14%	9%
	0-4999	438	53%	37%
	5000-6999	1,374	25%	17%
	7000-11999	3,520	8%	4%
	12000-14999	479	1%	2%
	15000-19999	265	0%	0%
	20000-24999	86	0%	2%
	25000+	81	0%	0%

As noted above, the Working Group also looked at allowed but unrealized floor area capacity in each zoning district under the proposed scheme as well as current FAR rules. When assessing FAR limits, it is possible to consider the total development capacity under FAR limits not just for a particular lot, but for an entire district. There are two components of that capacity: the amount that has already been built (the "*developed capacity*"), and the as-of-yet unrealized development capacity that theoretically could be built in compliance with FAR, assuming other dimensional controls allowed (the "*undeveloped capacity*"). The table below shows the developed and undeveloped capacity that the Working Group estimates exists in the City under

the sliding scale proposals. It also compares the proposals to existing undeveloped capacity under current FAR regulations. As is shown in the final two columns, undeveloped capacity under current rules and the proposed sliding scale do not vary significantly overall, though some capacity has been redistributed to smaller lots.

Development Capacity, SR Districts

Zone	Lot Size	Total Number of Parcels	Proposed Developed Capacity (Square footage of existing buildings, calculated under proposed definition of GFA)	Amount Remaining Under FAR Limits Proposed Undeveloped Capacity	Total Capacity Proposed Under FAR Sliding Scale	Percent of Total Capacity Undeveloped Under Current FAR Rules	Percent of Total Capacity Undeveloped Under Proposed Sliding Scale
SR1	ALL	1,600	7,201,199	3,989,864	11,191,063	38%	36%
	0-4999	*2*	4,356	0	4,356	0%	0%
	5000-6999	*18*	40,709	9,835	50,544	5%	19%
	7000-11999	*202*	657,369	124,625	781,994	7%	16%
	12000-14999	*175*	656,729	106,486	763,215	13%	14%
	15000-19999	*490*	1,844,362	595,438	2,439,799	23%	24%
	20000-24999	186	875,349	320,674	1,196,023	31%	27%
	25000+	527	3,122,325	2,832,806	5,955,131	52%	48%
SR2	ALL	7,813	25,399,339	11,903,877	37,303,216	31%	32%
	0-4999	*109*	210,959	10,413	221,372	1%	5%
	5000-6999	*655*	1,618,298	238,135	1,856,433	4%	13%
	7000-11999	*3,954*	11,761,276	4,293,890	16,055,165	20%	27%
	12000-14999	1,360	4,625,994	2,180,589	6,806,584	32%	32%
	15000-19999	1,151	4,251,895	2,449,124	6,701,018	41%	37%
	20000-24999	308	1,405,883	980,567	2,386,450	47%	41%
	25000+	276	1,525,034	1,751,160	3,276,194	59%	53%
SR3	ALL	6,243	15,281,726	10,548,416	25,830,141	39%	41%
	0-4999	*438*	793,617	138,348	931,966	9%	15%
	5000-6999	*1,374*	3,077,973	1,039,192	4,117,166	18%	25%
	7000-11999	3,520	8,529,932	5,925,502	14,455,433	36%	41%
	12000-14999	479	1,394,616	1,233,662	2,628,277	50%	47%
	15000-19999	265	837,012	953,619	1,790,631	59%	53%
	20000-24999	86	320,805	415,606	736,411	62%	56%
	25000+	81	327,771	842,487	1,170,258	77%	72%

The results for the MR districts are shown below:

Percent Nonconforming with Respect to FAR, MR Districts

	Lot Size	Total Number of Parcels	Current Percent of Total Development Capacity that is NOT Currently Developed	Proposed Percent of Total Development Capacity that is NOT Currently Developed
MR1	ALL	3,260	22%	16%
	0-4999	445	58%	40%
	5000-6999	906	37%	24%
	7000-9999	1,069	10%	11%
	10000-14999	610	2%	2%
	15000-19999	146	2%	4%
	20000-24999	54	0%	0%
	25000+	30	0%	0%
MR2	ALL	1,023	38%	30%
	0-4999	373	72%	56%
	5000-6999	301	32%	24%
	7000-9999	243	9%	7%
	10000-14999	94	5%	6%
	15000-19999	12	0%	0%
	20000-24999	0		
	25000+	0		
MR3	ALL	47	34%	36%
	0-4999	8	75%	63%
	5000-6999	12	50%	58%
	7000-9999	16	19%	25%
	10000-14999	10	10%	10%
	15000-19999	1	0%	0%
	20000-24999	0		
	25000+	0		

Development Capacity, MR Districts

Zone	Lot Size	Total Number of Parcels	Proposed Developed Capacity (Square footage of existing buildings, calculated under proposed definition of GFA)	Amount Remaining Under FAR Limits Proposed Undeveloped Capacity	Total Capacity Proposed Under FAR Sliding Scale	Percent of Total Capacity Undeveloped Under Current FAR Rules	Percent of Total Capacity Undeveloped Under Proposed Sliding Scale
MR1	ALL	3,260	9,691,511	4,792,259	14,483,770	34%	33%
	0-4999	445	918,682	168,043	1,086,725	9%	15%
	5000-6999	906	2,439,163	660,320	3,099,484	16%	21%
	7000-11999	1,069	3,342,836	1,405,846	4,748,682	28%	30%
	12000-14999	610	2,087,926	1,445,963	3,533,890	43%	41%
	15000-19999	146	589,921	530,415	1,120,336	56%	47%
	20000-24999	54	200,686	306,957	507,642	69%	60%
	25000+	30	112,297	274,715	387,012	78%	71%
MR2	ALL	1,023	2,571,526	1,016,646	3,588,171	25%	28%
	0-4999	373	722,579	99,855	822,434	7%	12%
	5000-6999	301	790,054	226,961	1,017,015	18%	22%
	7000-11999	243	697,145	382,037	1,079,182	32%	35%
	12000-14999	94	317,411	265,906	583,317	44%	46%
	15000-19999	12	44,336	41,887	86,223	54%	49%
	20000-24999	0	0	0	0		
	25000+	0	0	0	0		
MR3	ALL	47	160,344	42,307	202,651	21%	21%
	0-4999	8	18,646	1,959	20,605	4%	10%
	5000-6999	12	37,829	3,600	41,429	6%	9%
	7000-11999	16	60,671	13,393	74,064	20%	18%
	12000-14999	10	38,391	21,411	59,802	37%	36%
	15000-19999	1	4,807	1,944	6,751	28%	29%
	20000-24999	0	0	0	0		
	25000+	0	0	0	0		

Phasing

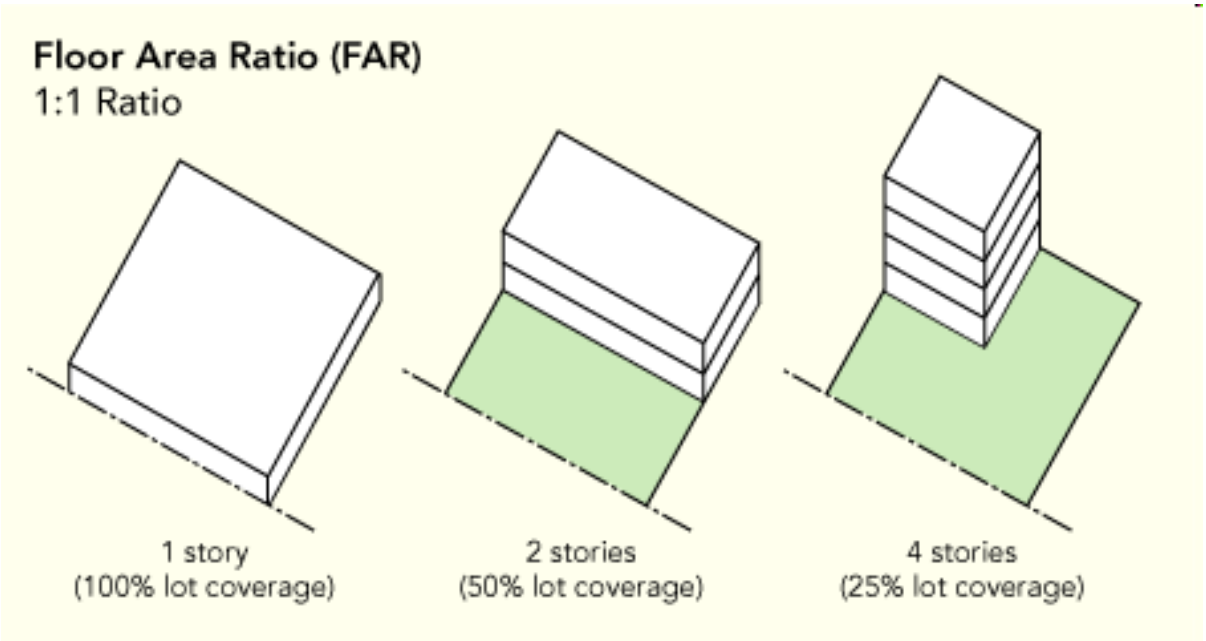
The Working Group's proposals represent a significant departure from current zoning. Despite much analysis and testing, some of the effects of the changes are unclear. This is particularly true of the basement calculation: the Working Group did not have access to data on existing grades in the City, and therefore could make only an informed judgment about the average percentage of a basement that would likely count toward FAR. Actual results will certainly vary by dwelling and neighborhood, but it is unclear if the overall average will also vary from the estimate.

Because of these uncertainties, the Group strongly recommends a period of phasing in of the proposed changes, for two reasons. First, a phase-in period will allow additional data to be gathered to further assess the amendments. Second, a phase-in period will also allow the public to become accustomed to the changes and to plan their construction projects accordingly.

Specifically, the Working Group recommends that the FAR "bonus" adopted last summer and set to sunset July 31, 2010, be extended another six months, through January 31, 2011. This six month period would give homeowners and those in the design and building professions adequate time to adjust to the new system. During this time, the Group also recommends that the City require FAR calculations be made according to both the existing and the new systems as a way to collect additional data on its likely impacts. The new system would go into effect February 1, 2011, and the Working Group has volunteered to reconvene in one year from this date to assess how well it is working and to recommend minor modifications if needed.

Attachment 1: Explanation of Floor Area Ratio

An FAR of "1" might look like any of the following:



In Newton, residential FAR limits range from .2 to .4, which translates to a maximum allowed gross floor area for a dwelling of 20% to 40% of lot size. FAR limits for each zoning district are given below:

Zoning District	FAR Limit
SR1	.25 (lots created before 12/7/53) .20 (all others)
SR2	.3
SR3	.35
MR1	.4
MR2	.4
MR3	.4

Graphic from http://www.lacity.org/lahd/curriculum/images/ch_far.gif

Petition 142-09(6): Proposed Amendments Relating To Residential FAR

Summary

Item # 142-09(6) FAR AMENDMENT ADVERTISEMENT LANGUAGE: To amend Chapter 30, §30-15(u) and TABLE 1 regarding Floor Area Ratio (FAR) to institute a new method of calculating maximum FAR for single and two family structures in residential districts based on a sliding scale tied to lot size and zoning district; to amend § 30-1 definitions of "gross floor area" and "floor area ratio" to include additional building features, accessory structures, and mass below first story; to amend § 30-1 to add definitions of "carport", "porch," "enclosed porch", and "mass below first story"; to delete the reference to §30-15 Table 1 contained in §30-21(c) and replace it with a reference to §30-15(u); to determine a date, between six (6) and twelve (12) months from date of passage, that the above amendments will become effective; and to extend the expiration dates of §30-15(u) paragraphs 1, 2, and 3 so they remain in effect until such date that the above amendments become effective.

Specific Proposed Changes

The following proposed amendments (1 through 5 below) would take effect on a future date (hereinafter "effective date") to be determined by the Board of Aldermen:

1. Add the following definitions to Sec. 30-1:

Carport: A one-story roofed structure permanently open on at least three sides and designed for or used for occupancy by a motor vehicle. For the purposes of this ordinance, a one-story port-cochere meets the definition of a carport.

Mass below first story: For the purposes of calculating gross floor area, any cellar, crawl space, basement, or other enclosed area lying directly below a first story in a residential structure.

Porch: A roofed projection that extends from the façade of a residential structure and that is neither heated nor air conditioned. A porch may share no more than two exterior walls with the residential structure. Railings or solid walls on the projecting facades of the porch may be no higher than 36" as measured from the finished porch floor; the remainder of these facades may be open to the elements or enclosed by mesh, glass, or similar material.

Porch, enclosed: A porch enclosed for any portion of the year by any nonpermeable material such as glass or a similar material.

Porch, unenclosed: A porch that at all times is either enclosed by permeable materials such as mesh or similar material or is unenclosed by any material.

2. Amend the following definitions in Sec. 30-1:

Floor area ratio:

(a) For residential structures in residential districts, gross floor area of all buildings on the lot divided by total lot area.

(b) For all others: Gross floor area of all buildings on the lot divided by total lot area. Any portion of a basement not used for storage, parking or building mechanicals shall be included in determining floor area ratio.

***Floor area, gross*:**

(a) For residential structures and buildings accessory to residential structures in residential districts, the sum of the floor area of all principal and accessory buildings whether or not habitable, except as excluded below. Floor area measurements shall be taken within the perimeter of the outside walls of each building without deduction for garage space, hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces, or other features as defined in this section.

a. Gross floor area shall include:
   i. First and second stories;
   ii. Any space above the second story, whether finished or unfinished, that meets all of the following criteria:
      1. Lies within the area of a horizontal plane that is five (5) feet above the floor and which touches the side walls and/or the underside of the roof rafters;
      2. Is at least seven (7) feet in any horizontal dimension, as measured within the area having a wall height of five feet or more;
      3. Has a minimum ceiling height of seven (7) feet on at least 50 percent of its required floor area; and
      4. Has a floor area of not less than 70 square feet as measured within the area having a wall height of five feet or more.
   iii. Atria, open wells, and other vertical open spaces, where floor area shall be calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by ten (10);
   iv. Enclosed porches;
   v. Attached garages;

Deleted: ¶
<#>For residential structures in residential districts, the sum of the floor area within the perimeter of the outside walls of the building without deduction for garage space, hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces, or other features exclusive of any portion of a basement as defined in this section. For atria, open wells and other vertical open spaces, floor area shall be calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by ten (10). Excluded from the calculation are bays or bay windows which are cantilevered and do not have foundations and which occupy no more than ten (10) per cent of the wall area on which they are mounted and any space in an attic or half story above the second story as defined in this ordinance. ¶
¶

vi. Detached garages and any space above the first story of a detached garage that has a ceiling height of 7' or greater;
vii. Other detached accessory buildings, such as sheds or cabanas, except as exempted in (b)(iii) below.
viii. A portion of mass below the first story, to be calculated as follows:

The lesser of 50% of the floor area of mass below first story OR the following: X/Y * floor area of mass below first story

Where:
X = Sum of the width of those sections of exposed walls below the first story having an exterior height equal to or greater than four (4) feet as measured from existing or proposed grade, whichever is lower, to the top of the subfloor of the first story
Y = Perimeter of exterior walls below first story

b. Gross floor area shall not include:
i. Unenclosed porches;
ii. Carports; and
iii. One detached accessory building equal to or less than 120 square feet in size.

(b) For all others: The floor area within the perimeter of the outside walls of the building without deduction for hallways, stairs, closets, thickness of walls, columns or other features.

3. Amend the provisions of 30-15(u) by replacing 30-15(u) in its entirety with the following:

(u) The floor area ratio (FAR) shall apply to all one and two family structures, whether new or existing, according to the FAR limits contained in Table A below. The following exceptions shall apply:

1. For construction on lots created before 12/7/1953, an additional increase in FAR of .02 above the amount shown in Table A shall be allowed, provided that new construction proposed using additional FAR granted under this paragraph shall comply with setback requirements for post-1953 lots. Any increase in FAR granted through this section may not create or increase nonconformities with respect to lot coverage or open space and may not be used in conjunction with section 30-21(c).

2. An increased FAR may be allowed by special permit if the proposed structure is consistent with and not in derogation of the size, scale and design of other structures in the neighborhood.

TABLE A: ALTERNATIVE FAR FOR SINGLE AND TWO FAMILY STRUCTURES IN RESIDENTIAL DISTRICTS

Lot Size Category	SR1	SR2	SR3
Less than or equal to 4,999 square feet	Maximum FAR=.46	Maximum FAR=.46	Maximum FAR=.48
5,000 to 6,999 square feet	*Maximum FAR ranges from .46 to .43 depending on lot size.* Maximum FAR= .46 – [.000015* (lot size-5000)]	*Maximum FAR ranges from .46 to .43 depending on lot size.* Maximum FAR= .46 – [.000015* (lot size-5000)]	Maximum FAR=.48
7,000 to 9,999 square feet	*Maximum FAR ranges from .43 to .33 depending on lot size.* Maximum FAR = .43 – [.000033* (lotsize-7000)]	*Maximum FAR ranges from .43 to .38 depending on lot size.* Maximum FAR = .43 – [.000017* (lot size-7000)]	*Maximum FAR ranges from .48 to .41 depending on lot size.* Maximum FAR = .48 – [.000023* (lot size-7000)]
10,000 to 14,999 square feet	*Maximum FAR ranges from .33 to .31 depending on lot size.* Maximum FAR = .33 – [.000004* (lot size-10000)]	*Maximum FAR ranges from .38 to .33 depending on lot size.* Maximum FAR = .38 – [.000010* (lot size-10000)]	*Maximum FAR ranges from .41 to .38 depending on lot size.* Maximum FAR = .41 – [.000006* (lot size-10000)]
15,000 to 19,999 square feet	*Maximum FAR ranges from .31 to .28 depending on lot size.* Maximum FAR = .31 – [.000006* (lot size-15000)]	Maximum FAR = .33	Maximum FAR = .38
20,000 to 24,999 square feet	*Maximum FAR ranges from .28 to .26 depending on lot size.* Maximum FAR = .28 – [.000004* (lot size-20000)]	Maximum FAR = .33	*Maximum FAR ranges from .38 to .36 depending on lot size.* Maximum FAR = .38 – [.000004* (lot size-20000)]
25,000 square feet or more	Maximum FAR = .26	Maximum FAR = .33	Maximum FAR = .36

Lot Size Category	MR1	MR2/MR3
Less than or equal to 4,999 square feet	Maximum FAR = .58	Maximum FAR = .58
5,000 to 6,999 square feet	*Maximum FAR ranges*	*Maximum FAR ranges*

	from .58 to .53 depending on lot size. Maximum FAR= .58 – [.000025* (lot size-5000)]	*from .58 to .53 depending on lot size.* Maximum FAR= .58 – [.000025* (lot size-5000)]
7,000 to 9,999 square feet	*Maximum FAR ranges from .53 to .48 depending on lot size.* Maximum FAR = .53 – [.000017* (lot size-7000)]	Maximum FAR = .53
10,000 to 14,999 square feet	Maximum FAR = .48	*Maximum FAR ranges from .53 to .43 depending on lot size.* Maximum FAR = .53 – [.000020* (lot size-10000)]
15,000 to 19,999 square feet	*Maximum FAR ranges from .48 to .43 depending on lot size.* Maximum FAR = .48 – [.000010* (lot size-15000)]	*Maximum FAR ranges from .43 to .38 depending on lot size.* Maximum FAR = .43 – [.000010* (lot size-15000)]
20,000 to 24,999 square feet	*Maximum FAR ranges from .43 to .38 depending on lot size.* Maximum FAR = .43 – [.000010* (lot size-20000)]	Maximum FAR = .38
25,000 square feet or more	Maximum FAR = .38	Maximum FAR = .38

4. Amend 30-15 Table 1 by removing some FAR limits from Table 1:

Delete, in Sec. 30-15 Table 1, all numbers listed under the TOTAL FLOOR AREA RATIO column for the following zoning districts: Single Residence I; Single Residence 2; Single Residence 3; Multi-Residence 1; Multi-Residence 2; Multi-Residence 3, excepting the number for the category of Residential Care Facility; and Multi-Residence 4, excepting the number for the category of Residential Care Facility. Add a cross reference to Sec. 30-15(u) Table A for determining FAR for single and two-family dwellings in these districts.

5. Amend 30-21(c) clause (5) by changing the reference to "section 30-15 table 1" to "section 30-15(u) Table A":

, (5) the de minimis relief provided in this section shall not apply to buildings in which the nonconformity is due solely to FAR requirements set out in section 30-15(u) Table A, nor shall it be used to increase the FAR beyond that shown in Table A.

Deleted: section 30-15 Table 1

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The following proposed amendment (6) would take effect upon passage:

6. Effective upon passage, amend the current provisions of Sec. 30-15(u) to extend the expiration dates in paragraphs 1, 2, and 3 until the "effective date" of the above listed proposed amendments.

(u) The floor area ratio (FAR) contained in section 30-15 Table 1 shall apply to all one and two family structures, whether new or existing, with the following exceptions:

1. For renovation of or addition to existing one and two family structures, a cumulative increase in FAR of up to .05 above the amount shown in Table 1 shall be allowed, whether such structures are conforming or lawfully nonconforming as to FAR, provided that the certificate of occupancy for the original construction of the existing structure was granted at least ten (10) years prior to the date of application for additional FAR pursuant to this paragraph or, where no such certificate is available, provided that there is other evidence of lawful occupancy of the existing structure for at least ten (10) years prior to the date of application. Any increase in FAR granted through this section may not create or increase nonconformities with respect to lot coverage, open space, or setback requirements and may not be used in conjunction with section 30-21©. The provisions of this paragraph shall expire on Effective Date.

Deleted: February 28, 2011

2. For renovation of or addition to existing one-and two-family structures on pre-1953 lots meeting all of the criteria of section 30-15(u)(1), an additional increase in FAR of up to .02 above the amount shown in Table 1 and the amount available in section 30-15(u)(1) shall be allowed, provided that any renovations or additions proposed using additional FAR granted under this paragraph or section 30-15(u)(1) shall comply with post-1953 setback requirements, or, if the footprint of the existing structure extends beyond the post-1953 setback requirements, shall extend no closer to the lot line than the present structure. The provisions of this paragraph shall expire on Effective Date.

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3. For construction of new one- and two-family structures, an additional FAR of .05 above the amount shown in Table 1 shall be allowed for initial construction on pre-1953 lots when post-1953 lot setback on lot coverage requirements and pre-1953 open space requirements are met. This provision

may not be used concurrently with section 30-15(u)1 or 2, nor shall it apply to additions to any structure. The provisions of this paragraph shall expire on Effective Date.

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4. An increased FAR may be allowed by special permit if the proposed structure is consistent with and not in derogation of the size, scale and design of other structures in the neighborhood.